

Change Order Number 4

PROJECT: **ROLATER 42" WATER LINE (COIT ROAD - PRESTON ROAD)**

PROJECT NUMBER: **CIP 06-0023**

BID NUMBER: **0810-001**

CONTRACT AMOUNT:

Original Contract: \$4,123,741.34

City Council Date: December 20, 2007

Change Order #1: \$4,107,857.34

City Council Date: February 21, 2008

Change Order #2: \$4,802,232.65

City Council Date: February 21, 2008

Change Order #3: \$4,949,594.65

City Council Date: January 20, 2009

Date: February 17, 2009

CONTRACTOR:

S. J. Louis Construction of Texas
520-A South 6th Avenue
Mansfield, TX 76063
Phone: (817) 477-0320
Fax: (817) 477-0552

You are directed to make the changes noted below in the subject Contract:

City of Frisco, Texas

By: _____

Name: George Purefoy, City Manager

Dated: _____

Nature of Changes:

During submittal review of the Welder/Welding Operator Performance Qualifications (WPQs), Welding Procedure Specification (WPS), and Procedure Qualification Records (PQRs) from the Contractor (S. J. Louis – SJL) in June 4 2008, CH2M HILL noted the steel provided for the job did not comply with the contract documents. Specifically, Type SS (Structural Steel) was specified, but Type HSLA (High Strength Low Alloy) was furnished. The pipe manufacturer (Hanson Pipe) acknowledged the material deviation; however, all the pipe had already been fabricated when the non-compliance was noted. For this reason, and in order to avoid major delays on the project, after meeting with SJL, Hanson, and CH2M HILL on July 29, 2008, the City agreed to accept the pipe as furnished if Hanson would provide an extended warranty.

Also, after the fourth submittal of Welder Procedure Specifications (WPSs) on July 21st 2008, the submittals still did not meet the specification requirements. In addition, Hanson advised they had no more of the supplied steel in stock for SJL to perform PQR prototype testing. To avoid further delays on pipe installation, the City agreed to waive certain parts of the specifications related to shop and field welding and testing procedures. At SJL's request, the City agreed to waive the requirement for full-time inspection by the Contractor's Certified Welding Inspector (CWI).

The purpose of this Change Order is to document these changes to the specifications. This is a No-Cost and No-Time Change Order and includes the following revisions to Specification 33 05 01.01 "Welded Steel Pipe and Fittings"

1. Paragraph 1.04 C: Delete "Welding Procedure Specification" entirely.
2. Paragraph 1.05 A.4: Delete "Welding Data (Shop and Field Welding)"
3. Paragraph 1.05 B.4: Delete "Procedures" subparagraphs a.1.a thru a.1.c
4. Paragraph 1.06 C.2.e: Replace paragraph under "Certified Welding Inspector (CWI) For Field Welding" with:

"Provide 100 percent visual inspection after field welding, and before and during welding as the CWI shall be present to inspect all welds (inside and outside of pipe) after they are made and before being covered. The CWI shall be present at least once daily when welding is being performed, and he/she shall perform the "before-weld" and "during-weld" inspections when welding is done and he/she is present; the daily visit shall be timed so that welding is generally ongoing (during normal welding hours). Reporting shall be performed for all welds and "during", whether "before", "during", or "after".

5. Paragraph 2.02 A: Replace paragraph under "Pipe Barrel" with:

A) Steel: Provide steel coils for spiral welded steel pipe or steel plate for straight seam welded steel pipe per AWWA C200 and as follows:

- 1) Minimum Yield Strength: 45,000 psi.
- 2) Minimum Tensile Strength: 60,000 psi.
- 3) Minimum Elongation in 2-inch Gauge Length: 22 percent.

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4) Weld-Ability: Maximum carbon equivalent of 0.45 as measured using AWS D1.1/D1.1M, Annex XI, Guideline on Alternative Methods for Determining Preheat formula: $CE = C + ((Mn + Si)/6) + (Cr + Mo + V)/5 + (Ni + Cu)/15$.

5) Pressure Vessel Quality as follows:

a) Coils:

(1) Continuous cast process, fully-killed, fine grained practice conforming to physical, manufacturing and testing requirements of ASTM A1018 HSLA Grade 45.

b) Plate:

(1) Fully-killed, conforming to ASTM A20, fine grained practice conforming to physical, to physical, manufacturing and testing requirements of ASTM 516/A516M, Grade 70.

(2) Steel Chemistry: Conform to ASTM A516/A516M, Grade 70. Steel plates that are 3/4 inch thick or greater shall be normalized.

c) Toughness:

(1) Charpy V-notch Acceptance Criteria: Transverse specimen orientation, full size specimens, 25 foot-pounds energy at test temperature of 30 degrees F test outside diameter wrap of two coils minimum per heat lot.

6) Wall Thickness: As shown on Table 1.

Table 1	
Nominal Pipe Diameter	Buried Pipe Wall Thickness
24 inch and under	Standard Weight
36 inch	0.25 inch
42 inch	0.286 inch

6. Paragraph 3.11 A.4: Replace "Inspect 10 percent of all lap joint welds PT or MT." with "Inspect 100 percent of all lap joint welds PT or MT."

These changes result in the following adjustment of Contract Price and Contract Time:

Contract Price Prior to this Change Order:		\$4,949,594.65
Net increase resulting from this Change Order:		\$0.00
Contract Price Including this Change Order:		\$4,949,594.65
Contract Time prior to this Change Order:	464	Calendar Days
Net Increase Resulting from this Change Order:	0	Calendar Days
Contract Time Including this Change Order:	464	Calendar Days

The Above Changes are Approved:

City of Frisco, Texas

By: _____

Name: Elizabeth Metting, P.E.

Title: Assistant Director / City Engineer

S. J. Louis Construction of Texas

By: _____

Name: _____

Title: _____